

PROPOSED TCEQ PERMIT NO. 66B

APPLICATION BY	§	BEFORE	2007 JUN 28 AM 10:35
WASTE MANAGEMENT OF TEXAS, INC.	§	THE TEXAS COMMISSION	
FOR PROPOSED TCEQ	§	ON	CHIEF CLERKS OFFICE
MUNICIPAL SOLID WASTE	§	ENVIRONMENTAL	
PERMIT NO. 66B	§	QUALITY	

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response or RTC) on the permit application by Waste Management of Texas, Inc. for proposed Permit No. 66B.

As required by Title 30 TAC § 55.156, before an application is approved, the Executive Director prepares a response to all timely, relevant and material, or significant comments. This Response addresses all timely public comments received, whether or not withdrawn. The Executive Director timely received comments from Larry Dunbar, on behalf of TJFA, L.P., Nancy Krueger, Rocky Haggerty, John Holtman, Rudy and Nancy Schwarzlose, Rudy Saucedo, Guadalupe County Commissioner Judy Cope, Guadalupe County Judge Mike Wiggins, James Langford, and Cheryl Fisher. In addition, the Executive Director received comments in support of this application from the individuals listed in Attachment A. If you need more information about this permit application or the permitting process please call the TCEQ Office of Public Assistance at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.state.tx.us.

BACKGROUND

Description of Facility

This permit amendment application, submitted by Waste Management of Texas, Inc, (WMTX), requests a lateral expansion and continued operation of a Type I MSW landfill in Comal County and Guadalupe County, Texas. The existing permit boundary (Comal County Landfill, MSW Permit No. 66A) is located in Comal County and the proposed lateral expansion will extend the facility permit boundary into Guadalupe County. The application proposes to change the name of the facility to Mesquite Creek Landfill. The lateral expansion will increase the permit boundary of the facility from 96.07 acres to 244.12 acres, and will increase the actual limit of the waste area (i.e., the waste disposal footprint) from 79 acres to 163.5 acres. application does not propose to change the facility's currently permitted maximum vertical elevation of 798 feet above mean sea level (ft-msl). The maximum vertical height of the lateral expansion will be 790 ft-msl. Solid waste that would be disposed of at the facility would primarily consist of municipal solid waste resulting from, or incidental to residential, community, commercial, institutional, agricultural, and recreational activities, including garbage,

yard waste, brush, rubbish, and street cleaning; municipal solid waste resulting from construction-demolition projects; industrial non-hazardous solid waste that is Class 1 due to asbestos content; Class 2 and Class 3 non-hazardous industrial waste; and certain special wastes as defined in Title 30 Texas Administrative Code (30 TAC) §§ 330.2(137), 330.136, and 330.137(b). The facility will not be allowed to accept waste materials other than those mentioned above unless authorized by the Executive Director, and will not be authorized to accept waste streams that are expressly prohibited by 30 TAC Chapter 330.

The Mesquite Creek Landfill is located at the southwest intersection of Farm-to-Market Road (FM) 1101 and Kohlenberg Lane, approximately 5 miles north of the intersection of State Highway 46 and FM 1101. The site is approximately two miles east of I-35, north of the City of New Braunfels.

Procedural Background

The permit application was received by the TCEQ on November 21, 2005, and declared administratively complete on December 13, 2005. The Notice of Receipt and Intent to Obtain a Permit for this permit amendment application was first published on December 19, 2005 in The San Antonio Express News in Bexar County, Texas. The application was declared technically complete on July 14, 2006. The Notice of Application and Preliminary Decision was subsequently published on August 29, 2006 in The New Braunfels Herald-Zeitung in Comal County, Texas and the Seguin Gazette Enterprise in Guadalupe County, Texas. The initial comment period closed on February 14, 2005.

Subsequently, on October 26, 2006, the Applicant submitted a revision to the permit amendment application, in response to comments received. On September 27, 2006, the TCEQ received a request from US Representative Edmund Kuempel that a public meeting be held. In response to the request, a public meeting was scheduled to be held on January 16, 2007, but due to the severe weather with freezing rain, the public meeting was postponed until March 19, 2007. The second public comment period closed on that day. On October 31, 2006, the Applicant filed for a direct referral and the preliminary hearing was scheduled for April 13, 2007, in New Braunfels, Texas. A combined notice consisting of the Notice of Receipt and Intent to Obtain Permit, Notice of Application and Preliminary Decision, Notice of Public Meeting and Notice of Hearing was published in The New Braunfels Herald-Zeitung, The Seguin Gazette-Enterprise, and the San Antonio News-Express.

Comment 1: The TCEQ received correspondence from the individuals listed in Attachment A, expressing support for the permit application.

Response: TCEQ has noted the letters in support of this application

The following comments; Nos. 2-58, are submitted by TJFA, L.P., unless stated otherwise.

Comment 2: Part A Application Form – Class 1 Waste & Special Waste.

The Part A Application form is incorrect because it states that the permittee will not accept Class 1 industrial waste, but will accept special waste. However, special waste includes Class 1 industrial solid waste of all kinds and the Part A Application form specifically references 30 TAC § 330.137 which is applicable to disposal of Class 1 industrial waste.

Response 2:

The Applicant proposes to accept the above mentioned waste at the facility in accordance with the TCEQ's rules for disposing of special waste found in 30 TAC § 330.136. The Applicant does not propose to accept Class 1 industrial waste, except for waste that is Class 1 only because of asbestos content. Class 1 waste that is special waste will require a special waste handling plan in accordance with 30 TAC § 330.136 of the TCEQ's MSW rules. The Applicant has provided appropriate information regarding asbestos containing material throughout the permit amendment application. It is appropriate to list Class 1 waste in the Special Waste section.

Comment 3: Part A Application Form - Incomplete

The Part A Application form is incomplete because State Representative Carter Casteel of District 73 in Comal County was not listed to receive notice.

Response 3:

The proposed facility is located in both Comal County and Guadalupe County which also is in the area of two different state legislative districts. Representative Castell was inadvertently omitted from the form. However, the form was revised to include the State Representative on October 20, 2006. The cover letter for this revision also stated that according to the TCEQ Chief Clerk's files, Representative Carter Casteel of District 73 received public notice as required by TCEQ rules and therefore, elected officials have been properly notified during the application process.

Comment 4: Part A Application Form & Core Data Form – TPDES Requirements

The Applicant incorrectly indicates on Part A of the Application form that it is not required to comply with TPDES storm-water plan requirements.

Response 4:

The Instructions for Section III on the Core Data Form only requires filling in changed items and page 8 of the Part A Application Form indicates that a TPDES stormwater permit has been secured and no change is proposed to the TPDES stormwater permit requirements. Therefore, the particular item in Section III on the Core Data Form was left blank.

Comment 5: Alternate Liner

The Applicant incorporates incorrect information and misleads TCEQ and the general public by stating that Subtitle D equivalent alternate liner systems were installed in Phases III and IV. In fact, there is no regulatorily recognized equivalent alternative liner system.

Response 5:

The requirements of allowable options regarding an alternate liner system are in 30 TAC §§ 30.200(a)(1). Information presented in the application complies with this rule. Furthermore, an alternate liner system was previously approved in the existing permit (MSW Permit No. 66A) as an alternate to the composite liner system.

Comment 6: Maximum Height

The Applicant states that the landfill expansion area is lower than the currently permitted height. This is misleading because the maximum height of the proposed landfill expansion will rise approximately 190 additional feet above parts of the surrounding landscape.

Response 6:

Currently, the maximum elevation of the existing landfill is 798 ft above mean sea level (ft-msl) and is approximately 190 ft. above the natural ground. The expansion area is proposed to have a maximum elevation of 790 ft-msl and is approximately 8 ft. lower than the currently permitted elevation. The application contains adequate information to demonstrate this in Part III, Attachment 1, Drawings 1-1 and 1-3.

Comment 7: Waste Reduction

The Applicant makes no commitment to implement or maintain any waste reduction program.

Response 7:

The TCEQ encourages source reduction, reuse, and recycling in many ways, such as the Texas Recycling Program and Urban Recycling Events held throughout the state. Additionally, TCEQ rules provide incentives for facilities to recycle, but recycling is discretionary and not a mandatory requirement for a landfill permits.

Comment 8: Operating Hours

The site is to become operational 24 hours per day and 7 days per week.

Response 8:

It is correct that the Applicant proposes to operate 24 hours per day, 7 days per week as provided in the application's Site Operating Plan (SOP).

Comment 9: Traffic Study

An insufficient traffic study was performed. This is particularly critical given the rapid growth that is occurring in Comal/Guadalupe County area.

Response 9:

According to the TCEQ's MSW rules at 30 TAC § 330.11(b), if the primary access to a proposed facility is provided by a state maintained highway, the TCEQ must solicit a recommendation from the Texas Department of Transportation (TxDOT) regarding the adequacy and design capacity of the roadway to safely accommodate the additional volumes and weights of traffic expected to be generated by the facility. Part I/II of the application contains a coordination letter from TxDOT that indicates that TxDOT has no objection to the proposed landfill expansion at its proposed location. Furthermore, a comprehensive traffic study was performed in 2001 for the existing permit. Based on information provided in the traffic study, Geosyntec Consultants used actual landfill traffic counts from 2002 through 2004 and the projected traffic growth on surrounding roads, to predict the traffic in 2006. The traffic projections were also made for future traffic up to 2036. This traffic study was also forwarded to the TxDOT for their review. In the TxDOT letter dated 12 July 2005, included in Part I/II of the application, TxDOT indicates that they reviewed the study and, agree that the traffic impact on the surrounding area roadways as a result of expanding this site will be minimal.

Comment 10: Traffic Study & Population Growth

The traffic study states that increases in traffic are the same as the estimated increases in population growth at 2% per year, but 1.75% growth was actually used in the traffic study.

Response 10:

As indicated in the application, Part I/II, Appendix I/II-C, Page I/II-C-7, the traffic study assumed 1.75% per year for landfill traffic and 2% per year for non-landfill traffic.

Comment 11: Traffic & Access Road

The application states that traffic will be discouraged on Schwarzlose Road in Guadalupe County, but according to the traffic study, at least 10 percent of the vehicles coming to the landfill will use this road for access.

Response 11:

Page I/II-C-7 of the application indicates that approximately 10% of landfill traffic will use Schwarzlose Road. The Applicant also included a statement on Page I/II-A-19 of the application that the Applicant has in the past encouraged, and will continue to encourage, their customers to use alternate routes instead of Schwarzlose Road.

Comment 12: Traffic Count

The traffic study also likely underestimates current and future traffic accessing the landfill. The application states that currently 172 vehicles per day enter and leave the landfill.

The application also states that the landfill receives over 1,300 tons per day of waste. This means that each vehicle must bring in an average of over 7 tons of waste. If an allowance for onsite workers and "mom and pop" haulers is allowed, each vehicle must carry even more waste. Even if the waste were already compacted to 1,500 tons per cubic yard, which it would not be, and half the vehicles are workers and mom and pop haulers, each of the remaining vehicles would be carrying 20 cubic yards of waste, an impossibly high amount for vehicles smaller than transfer trailers. The projections of traffic increasers are similarly flawed.

Response 12:

TCEQ MSW staff contacted the Applicant and the Applicant's engineer to double check the traffic count theory used in this application regarding this comment and learned the following:

- The basis for the traffic study is the actual traffic count from the average daily tonnage and the average daily number of incoming vehicles is from actual scale records documented at the facility; and
- There are currently nine workers at the facility. Using an assumption of two visitors per day, and subtracting eleven for the on-site workers/visitors, leaves 161 waste hauling vehicles per day on average. While there are occasional small waste loads at the site, they make up no more than 20% of the daily total. This equates to approximately 32 small loads per day at the site, with a conservatively low estimated incoming weight of approximately 2 tons each. This leaves 1236 tons per day per 129 typical-sized residential/commercial waste hauling vehicles. This gives 9.6 tons per vehicle needed capacity. Typical residential/commercial waste hauling vehicles have capacities of 15 to 40 cubic yards, and compact waste to approximately 1000 pounds per cubic yard. Thus, these typical waste hauling vehicles hold approximately 7.5 to 20 tons of waste, which matches well with the above estimate showing approximately 10 tons per vehicle needed. While this calculation is only hypothetical, the computation shows that the incoming landfill traffic is easily capable of transporting the reported incoming daily tonnage, which helps confirm that the data used in the provided traffic study is reasonable.

Comment 13: Subsurface Formations

The information provided in Attachment 4 of the application indicates Stratum III is the uppermost water-bearing unit, describing Stratum IV as the underlying aquiclude, yet the alternative liner design demonstration says Stratum III and Stratum IV constitute the uppermost water-bearing unit and that Stratum V is the underlying aquiclude. The application states that no borings penetrated through Stratum IV.

Response 13:

The 1995 Alternate Liner Demonstration (ALD), prepared by Rust Lichliter/Jameson as part of the 1994 Subtitle D Upgrade permit modification application, subdivided the shallow strata beneath the Comal County Recycling and Disposal Facility site in a different manner than the stratigraphic designations used in the original permit application (Permit 66) and subsequent amendment applications (Permits 66A and 66B). As opposed to the other applications' delineation of "Stratum III" as the uppermost water-bearing unit and "Stratum IV" as the underlying aquiclude, the ALD subdivided the water-bearing strata into separate "Stratum III" and "Stratum IV" units, with the underlying aquiclude then being designated "Stratum V." Therefore, the application's "Stratum III" and "Stratum IV" designations, and the ALD's "Stratum III/Stratum IV" designations are synonymous, respectively. The application states that no borings fully penetrated Stratum IV, the aquiclude at the site. 30 TAC § 330.56(d)(5)(A)(ii) only requires that soil borings be drilled deeply enough to identify the aquiclude at the lower boundary of the uppermost aquifer, not full penetration through the unit. Additionally, fully penetrating stratigraphic units that serve as underlying confining units greatly lessens the ability of the aquiclude to prevent the downward migration of leachate should the landfill liner become compromised.

Comment 14: Edwards Aquifer

The Ground and Surface Water Statement does not contain any discussion of the Edwards Aquifer, which is stated to occur about 500-600 feet below the landfill, but Table I/II-3 shows it at 245 feet below the Taylor Formation, which is stated to be only 260 feet thick.

Response 14:

TCEQ staff made very similar comments in the February 3, 2006, First Technical Notice of Deficiency that was sent to the Applicant after the initial review of the application was performed. An agreement was reached during a February 28, 2006 meeting between the Applicant and the MSW Permits Section that § 6.2 of Parts I/II would adequately address the requirements of 30 TAC § 330.53(b)(11)(A) to provide sufficient data to describe the site-specific ground-water conditions at and near the site. As for the approximate depth to the top of the Edwards Aquifer, this is equivalent to the depth to the top of the Georgetown Limestone, the shallowest hydrogeologic unit attributed to the aquifer. Table I/II-3 of the application depicts this depth to be approximately 529 feet below the site, which is computed by adding the estimated thicknesses of the overlying units – namely, alluvium (15 feet), the Uvalde Gravel (9

feet), the Lower Taylor Group (260 feet), the Austin Chalk (100 feet), the Eagle Ford Shale (30 feet), the Buda Limestone (65 feet), and the Del Rio Formation (50 feet). This computation is confirmed through an impartial source, Drawing Number 4-3, which is a regional geologic cross-section from a 2000 Bureau of Economic Geology publication, from which an approximate depth of 550 feet to the top of the Georgetown Limestone at the facility's estimated location was determined by Staff. Therefore, the application's estimate of 500-600 feet for the depth to the Edwards Aquifer is appropriate.

Comment 15: Site Soils

The site soils are said to belong to the Houston Black-Houston association when in fact there is no such association.

Response 15:

According to the United States Department of Agriculture soils map depicted in Figure 12 of Part I/II of the application, the site's soil horizons are composed primarily of Ferris Clay, Houston Black Clay, and Houston Black Gravelly Clay soil types. These soil types are commonly associated with the "Houston Black", "Houston", and "Ferris" soil series as defined by the USDA's Natural Resources Conservation Service, are found in the same or similar soil survey areas, and are similar in their physical and chemical properties. Therefore, TCEQ staff did not object to the applicant's usage of "Houston Black-Houston association" in this context.

Comment 16: Mesquite Creek Crossing & US Army Corp of Engineers

The operation is using a stream crossing over Mesquite Creek without apparent authorization from or disclosure to the Army Corp of Engineers.

Response 16:

In accordance with the US Army Corps of Engineers (USACE)'s Nationwide Permit 14, the above mentioned crossing is less than 0.1 acre in size which does not impact a special aquatic site (e.g., wetlands), and therefore, is not required to file a disclosure to or authorization from the USACE. However, the Applicant voluntarily informed the USACE Fort Worth District on November 17, 2006, and has requested their review of a Nationwide Permit 14 for this stream crossing. This stream crossing permit is included in the Part A Application Form (Page 8 of 10) and is discussed in Parts I/II, § 7.2.2 of the application.

Comment 17: Perimeter Road

The landfill Unit 1 west of the proposed Mesquite Creek Landfill does not show a perimeter road around the entire landfill for maintenance access, but only on the southwest side.

Response 17:

The landfill buffer zone near Unit 1 area was previously permitted and constructed without a perimeter road.

Comment 18: Mesquite Creek Crossing & US Army Corp of Engineers

If the landfill expansion is permitted as proposed vehicles loaded with waste must cross Mesquite Creek to reach Unit 3 of the landfill after the current entrance is closed and moved to the area at the new Unit 2 to the southeast. This is not discussed in the permit application nor does it appear to have been conveyed to the Army Corps of Engineers.

Response 18:

The Applicant has provided adequate information in Part III, Attachment 1, Drawing 1-1 of the application regarding the proposed site road that will be used to cross Mesquite Creek. The road will be used to eventually access Unit 3.

Comment 19: Impact on Freedom Lake

The analysis of impact of encroachment of the storm water detention ponds on the flood pool of Freedom Lake is erroneous because it assumes that the detention ponds are empty and that some of the Freedom Lake flood waters can be stored in the storm water detention ponds.

The analysis did not take into consideration the timing of peak flood levels for Freedom Lake and the timing of discharge into and from the storm water detention ponds. If the storm water detention ponds are full, or even partially full, the ponds are unavailable to compensate for the loss of valley storage related to Freedom Lake.

Response 19:

As presented in Attachment 6 of the application, the proposed landfill is designed to include a stormwater detention pond Pond 1 and Pond 1 is designed with culverts drain at the bottom of the pond. Stormwater entering Pond 1, from the flood pool of the Freedom Lake through culverts or from the landfill stormwater run-off will be discharged at a slower rate than the pre-development condition. In addition, the Pond 1 will be excavated mostly outside of the flood pool of Freedom Lake encroachment and provides more flood storage capacity to Freedom Lake.

Comment 20: Drainage Facilities Design

Drainage facilities, including all channels, were designed for the 25-year / 24 hour storm event; however, contrary to good engineering practice and to the MSW regulations, there is no discussion or demonstration that this is the most critical event for determining peak discharge.

Response 20:

The Commission's MSW regulations at 30 TAC § 330.56(f) require that adequate information for drainage structures are designed to handle runoff from a 24-hour, 25-year storm event. These structures include drainage terraces, final cover drainage channels, perimeter drainage channels, and detention basins. The proposed facility drainage system, as demonstrated in Attachment 6 of the application, was designed to handle runoff from the 25-year/24-hour storm event in accordance with 30 TAC § 330.55(b)(2)-(3) and 30 TAC § 330.56(f)(4)(A)(ii)). In addition, stormwater will be conveyed through perimeter ditches into detention ponds which were design to handle a 24-hour, 100-year storm beyond the regulatory requirements.

Comment 21: Floodplain

The floodplain analysis was performed with an outdated floodplain map, which does not accurately reflect the 100-year floodplain location today and, therefore, cannot show that landfill operations will not restrict the 100-year flood or cause a washout of solid waste.

Response 21:

The Commission's MSW regulations at 30 TAC § 330.56(f) require the Applicant to provide a floodplain map to show whether the proposed landfill site is located within the 100-yr floodplain, indicate the source of all data for such determination and include a copy of the relevant Federal Emergency Management Agency (FEMA) flood map, if used, or the calculations and maps used where a FEMA map is not available. Information must also be provided identifying the 100-year flood level and any other special flooding factors (e. g., wave action) that must be considered in designing, constructing, operating, or maintaining the proposed facility to withstand washout from a 100-year flood. The boundaries of the proposed landfill facility should be shown on the floodplain map.

Furthermore, under 30 TAC § 330.53(b)(12) of the Commission's MSW rules, the application must include a floodplains statement.

Statements and maps provided in the application regarding floodplain were prepared by the applicant's licensed professional engineer who certifies and attests to the accuracy and the latest available of the data at the time of the application submittal. The Applicant has provided adequate floodplain map as required by the rule and based on the provided FEMA Floodplain Map, Figure I/II-13 of Part I/II of the application, the proposed site in not located in the 100-year floodplain.

Comment 22: 100-Year Flood Analysis

The 100-year flood analysis performed by the Applicant neglected to consider the backwater effects of Freedom Lake and the stated fact in the application that the Freedom Lake flood pool does encroach upon the landfill site.

Response 22:

The Commission's MSW regulations at 30 TAC § 330.55(b)(7) requires the Applicant to protect the site from flooding by constructing suitable levees to provide protection from a 100-year frequency flood or to perform a watershed analysis to demonstrate that the 100-yr frequency flood will not reach any portions of the site. In this case, the 100-yr frequency flood analysis is included in the application as presented in Attachment 6 – 6G to Part III of the application. Backwater effects from Freedom Lake were not considered in the 100-yr frequency flood analysis because the water levels of Freedom Lake prior to the 100-yr storm will be very low due to the low outlet structure of the Freedom Lake. In addition, the previously mentioned Pond 1 will be excavated mostly outside of the flood pool of Freedom Lake encroachment and provide more flood storage capacity to Freedom Lake.

Comment 23: Liner Design

The Subtitle D liner design is flawed due to the proposed anchoring of Subtitle D liner and the overlying geosynthetic drainage layer in the same trench.

Response 23:

The design of the proposed anchoring system meets both the federal and Texas rules for the construction of municipal solid waste landfills, and is a conventional design commonly used in modern construction of MSW landfills that employ a single composite liner system. No prescribed methods or requirements are found in either set of rules relating to the design of Subtitle D liner anchoring systems, nor is there a rule prohibiting the proposed anchoring design.

Comment 24: Alternative Final Cover System

The alternative final cover system proposed presumes an infiltration barrier of 1×10^{-7} cm/sec or less, but this hydraulic conductivity will not be maintained over time due to wetting and drying, freezing and thawing, and animal activities during the life of the landfill and a thirty-year post-closure care period.

Response 24:

According to 30 TAC § 330.253(c) of the TCEQ's MSW rules, an alternative final cover design may be used under certain criteria including:

- an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in 30 TAC § 330.253(b)(1) or (2); and
- an erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in 30 TAC § 330.253(b)(3).

The provided alternative final cover was prepared and sealed by a professional engineer to ensure accuracy of the design and calculations. The Executive Director has reviewed the alternate final cover, and determined that this information complies with the requirements of 30 TAC § 330.253(c).

In addition, the proposed alternative final cover system contains an infiltration layer with a hydraulic conductivity of 1×10^{-5} cm/s as provided in Drawing 7-1 of Attachment 7 to Part III of the application. This infiltration layer will be overlain by 2.5-ft of soil to protect the layer against wetting/drying, freezing and thawing, and animal activities. The Post Closure Plan includes procedures for inspection and repair of the proposed final cover system as provided on Page 13-7 of Attachment 7 to Part III of the application.

Comment 25: Alternate Liner System

The alternative liner system demonstration incorporated into the permit application is fatally flawed because it is for a site located over the Wilcox Aquifer, which does not exist at the site. Since this flawed demonstration was the basis for use of an alternate linear system in portions of Unit I and for the yet to be built Unit 3, the facility is in violation of the federal Subtitle D rule and the state's MSW regulations and should be designated an open dump. Open dumps cannot be permitted.

Response 25:

The Alternative Liner System Demonstration (ALD) was received by the TCEQ on March 3, 1995 for review, shortly after the November 28, 1994 conditional approval of the 1994 RCRA Subtitle D Design Upgrade Class I permit modification application. Due to problems encountered with the recompaction of site soils in constructing the approved liner system, the ALD was submitted to revise the facility liner design, and was approved through a March 24, 1995 TNRCC letter. The demonstration was also submitted as part of Permit Amendment Application No. 66A, which was issued October 24, 2003. Some of the current facility areas – specifically Phases III and V (of proposed “Unit 1” designation) – have already been lined with the above alternative liner system. The remainder of the permitted area of the facility that has had a liner system installed (Phases I and II of proposed “Unit 1” designation) employed a pre-Subtitle D liner system. For proposed permit amendment application 66B, the company has not requested changes to the landfill unit design for the permitted facility area, to which the ALD applies. Therefore, the ALD will be accepted in its current form for use in any unlined areas permitted under the approval of Permit No. 66A. As stated in Section 4.2.1 of Attachment 5 (Ground-water Characterization Report) and Section 1.6 of Attachment 10 (Soil and Liner Quality Control Plan), the Applicant proposes the option to use either a standard Subtitle D liner system, or the alternative liner system as described in the ALD.

Comment 26: Subsurface Investigation

The subsurface investigation was inadequate because there was no attempt to reconcile the inconsistencies in the soil borings done for this application and the soil borings done previously, therefore, it presents a flawed analysis of subsurface conditions.

Response 26:

The comment does not provide any specific details as to the nature of the "inconsistencies in the soil borings done for this application and the soil borings done previously." Other than the differences in the naming of the shallow units beneath the site, which is addressed in Comment 13 above, the soil/rock units encountered during the drilling of the soil borings, and as described in the soil boring logs, were similar and consistent. Both studies resulted in soil boring logs with mainly clay, silty clay, and claystone layers depicted with varying amounts of staining, fracturing, and slickensides present. Thin lenses and pockets of gravel near the land surface were also frequently found during both studies. The only inconsistency noticed by ED Staff was the tendency for fracture crystallization to be identified as gypsum in the earlier studies, and as calcite in the studies performed most recently for the proposed application. A geochemical difference such as this would be unlikely over the small distance between the permitted portion of the site and the proposed portion, and is therefore most likely a misidentification of the predominant mineral filling the fractures in the strata beneath the site by one of the two studies.

Comment 27: Landfill Excavation Depth

The landfill expansion area in Unit 2 will bottom below the water table. Attachment 4 does not contain a poorly permeable demonstration to support their position, nor is one provided elsewhere in the permit application.

Response 27:

TCEQ staff addressed this issue (Comment 211) in the February 3, 2006 First Technical Notice of Deficiency that was sent to the Applicant after the initial review of the application was performed. As opposed to Attachment 4, ballasting issues in relation to the landfill's liner system are instead routinely addressed in Attachment 10 – the Soil and Liner Quality Control Plan (SLQCP), in accordance with 30 TAC §§ 330.203 and 330.205. In response to Comment 211, the Applicant revised Section 8 (pages 10-70 through 10-76) of Attachment 10 to provide sufficient additional information to supplement the belief that Stratum III is so poorly permeable as to not exert a great enough force to damage the overlying liner system.

Comment 28: Water Well

A water well is listed as irrigation well in one place and then referred to as a domestic well in another attachment.

Response 28:

This discrepancy was corrected in the October 20, 2006, addendum that was submitted to the TCEQ in response to comments received during the initial 30-day public comment period. The addendum provided limited revisions and/or clarification on six of these comments, one of which addressed the usage classification of a water well (assumed to be Well Number 68-24-303, because the well number and locations within the application are not identified in the public comment) in Figure 7 of Parts I/II of the application.

Comment 29: Water Well

Information provided concerning local water wells is inconsistent with the other information provided, indicating the wells inventory was inadequate.

Response 29:

The comment does not specify the nature of the inconsistency(ies) addressed, nor what the other information referred to is. If this comment is referring to the usage classification difference (irrigation versus domestic) for the water well cited in Comment 28 above, the response to Comment 28 would also be applicable here.

Comment 30: Seismic Impact

The seismic impact statement says the Balcones Fault has a minimal chance of reactivation, but there is no explanation or data in the application to support this statement. The application acknowledges that there is a fault through the landfill site.

Response 30:

A similar comment was posed by TCEQ staff in the February 3, 2006, First Technical Notice of Deficiency (Comment Number 106) that was sent to the Applicant after the initial review of the application was performed. The Applicant provided an adequate response to this comment, which was incorporated into the application through revision of page 4-16 of Attachment 4. Evidence to support The Applicant's belief that the future reactivation of the above fault by natural and/or man-made influences would be unlikely included the low seismic risk associated with the facility location, the lack of oil and/or gas production and mining of minerals in the area, the lack of large withdrawals of groundwater nearby, and the relatively low stress the landfill unit's weight would place on the underlying strata.

Comment 31: Subsurface Investigation

No piezometers were completed in Stratum IV of the expansion unit to test for and to compare hydraulic conductivity for the upper most water-bearing unit and the underlying aquiclude. The application used information generated by others for Unit 1 of the landfill, which was developed years ago.

Response 31:

Hydraulic conductivity testing has been performed at the facility for both the Stratum III and Stratum IV units, the results of which were included in the application. This data was obtained through the use of field slug tests for determining horizontal hydraulic conductivity values for the two units, and through laboratory testing to determine vertical hydraulic conductivity. A description of this work is found in Section 8.5 of Attachment 4, with the field and laboratory testing results compiled in Tables 4-9 and 4-10, and summarized in the unnamed table on page 4-37. Horizontal hydraulic conductivities for Stratum III within the proposed expansion area were determined most recently by GeoSyntec Consultants in 2005, and ranged from 3.08×10^{-5} cm/sec to 4.76×10^{-7} cm/sec (geometric mean of 3.07×10^{-6} cm/sec), which correlated closely with the 2002 findings of Metroplex Industries, Inc. (Metroplex) for the permitted portion of the facility (geometric mean of 1.51×10^{-6} cm/sec). For Stratum III, vertical hydraulic conductivity results varied from 8×10^{-8} to 5×10^{-7} cm/sec in the permitted portion of the facility to 2.5×10^{-9} to 6.6×10^{-6} cm/sec within the expansion area. Horizontal hydraulic conductivity testing on Stratum IV was not conducted by GeoSyntec, but had been determined at testing locations within the permitted facility area by Metroplex during 2002, and was found to range from 4.50×10^{-6} to 4.50×10^{-8} cm/sec (geometric mean of 2.68×10^{-7} cm/sec). Vertical hydraulic conductivities ranged from 1.8×10^{-9} to 6.4×10^{-8} cm/sec for locations within the proposed expansion area. Stratum IV is considered the underlying aquitard to Stratum III, and through site investigation observations and historical ground-water monitoring data from six piezometers and a well, has been characterized as having little to no groundwater within the unit. Therefore, vertical hydraulic conductivity data derived through laboratory tests are more important in determining the ability of Stratum IV to serve as a potential barrier to vertical migration of fluids should there be a release to Stratum III than horizontal hydraulic conductivity data for a unit with little to no ability to laterally transmit groundwater.

Comment 32: Soil Boring Data Inconsistency

The application is inconsistent because in one place it states there were 48 soil borings and in another it states there were 32 borings.

Response 32:

This discrepancy was corrected in the October 20, 2006, addendum that was submitted to the TCEQ in response to comments received during the 30-day public comment period. The addendum provided limited revisions and/or clarification on six of these comments, one of which addressed the stated number of soil borings that had been drilled at the site. On February 13, 2007, a second addendum was submitted to correct inconsistencies between pages 4-17 and 4-20 of Attachment 4 in the first addendum. A final accounting of the number of borings concluded that there had been a total of 65 soil borings completed during the lifetime of the facility, of which 32 borings had been drilled to comply with the requirements of the September 22, 2004, Soil Boring Plan approval letter related to the proposed landfill expansion. An additional 33 soil borings that were not drilled to a depth below the elevation of the deepest excavation provided

additional information to better characterize the site's subsurface stratigraphy. Page 4-20 of the application was revised to reflect the data above, and resolve the inconsistencies.

Comment 33: Groundwater Sampling Technique Inconsistency

The permit amendment application is inconsistent because it states in one place that all split spoon samples were evaluated for water content, but in another place it says only selected samples were evaluated. Such inconsistencies do not provide a clear understanding of subsurface conditions at the site.

Response 33:

This discrepancy was corrected in the October 20, 2006, addendum that was submitted to the TCEQ in response to comments received during the 30-day public comment period. The addendum provided limited revisions and/or clarification on six of these comments, one of which addressed the frequency for which the split spoon soil samples were evaluated for water content. Page 4-15 of Attachment 4 was revised to state that the split spoon evaluation was performed only for selected soil samples.

Comment 34: Groundwater Flow Direction toward Mesquite Creek

The ground-water level is at the base of the tributary to Mesquite Creek on the southwest side of the existing landfill Unit 1 based on Drawing 4-13, and ground-water is indicated to flow from northeast to southwest through the landfill to the tributary, creating an unauthorized discharge of leachate into a surface water course. Since portions of Unit 1 have in-situ or compacted clay pre-Subtitle D liner systems movement of groundwater (becoming leachate) through the landfill waste is a reasonable inference.

Response 34:

Comment 34 implies that, should the water table beneath Unit 1 of the landfill rise or exist at an elevation equal to or above the base of the landfill unit, groundwater could potentially infiltrate the pre-Subtitle D liner systems, pass through the deposited waste picking up contaminants, infiltrate back through the same liner systems, migrate downgradient toward a tributary of Mesquite Creek, and eventually be discharged to the tributary or Mesquite Creek, which is not authorized under the current MSW rules. When taking into account the hydrogeologic setting beneath the site, the lithologic and hydrologic characteristics of Stratum III, and the ground-water data provided in the application, this appears to be a very unlikely scenario. Beneath the site, depths to the zone of saturation within Stratum III, the uppermost aquifer, are not consistent, most likely due to factors such as the blocky, fractured nature and low hydraulic conductivity of the clay/claystone matrix, the unconfined ground-water conditions that exist in Stratum III, and the variability and degree of fracture in-filling by mineral crystallization. This inconsistency is well displayed in the hydrogeologic cross-sections of Drawings 4-7 through 4-10, where groundwater was found intermittently in Stratum III beneath Unit 1 in the soil borings drilled during the initial site characterization. Stratum III also has been shown through

laboratory testing to have a very low vertical hydraulic conductivity, the results of which are shown in Table 4-10 of the application. The above hydrogeologic cross-sections also show ground-water levels were determined at elevations below the base of Mesquite Creek, the location of which is depicted in the figures. Since the tributary of Mesquite Creek would have to have its channel above Mesquite Creek in order to flow to it, the vertical separation in elevation between the bottom of the tributary channel and the groundwater beneath it would have been even greater. Very similar ground-water level data were recorded in the potentiometric surface maps, Drawings 4-13A through 4-13C, consistent with the levels shown in the cross-sections. The only data that showed that the water table was ever at or above the elevation of Mesquite Creek would have occurred during the time of the sampling events cited in Drawing 4-14, the Seasonal High Ground-water Table Map, Stratum III, in which the highest water level elevations for each monitoring point is depicted. At data points MW-3 and GB-02, water levels rose near to a few feet above the base of Mesquite Creek on January 25, 1995, and March 31, 2005, respectively. But these were only short-lived elevation increases, thus not of the duration needed to trigger the scenario posed above. The ground-water elevation increases were also not laterally extensive – even though the two data points are only about 250 feet apart, the highest measured ground-water elevation for each point occurred ten years apart.

Comment 35: Groundwater Monitoring Gradient

Monitor Well No. 1 is not an up gradient well, but it is being used as an up gradient well in Drawings 4-13, 4-13A and 4-13B.

Response 35:

Monitor well MW-1 is a part of the facility's ground-water monitoring system that has been in-place since February 1992, which was proposed, reviewed, and approved in the 1994 RCRA Subtitle D Design Upgrade Class I permit modification application and Permit Amendment Application No. 66A. This well is not being "used" as an upgradient well in these figures; in fact, terms or symbols for "upgradient," "sidegradient," or "downgradient" wells are not used anywhere on these maps, including the legends. Instead, Table 5-1 defines the designated function of each of the monitor wells. In this table, monitor well MW-1 is designated as an upgradient monitor well, and Staff agrees with this identification for the well. Drawings 4-13/4-13B, 4-13A, and 4-13C depict the potentiometric surface for Stratum III, the uppermost aquifer, determined from data obtained during sampling events performed in April – October 2005. The alignment of the potentiometric surface contour lines on all of the drawings indicate that groundwater beneath the permitted portion of the site flows generally in a southwesterly direction, with a more southerly flow in the eastern half of the site due to influence by topography and the proximity to Mesquite Creek. Monitor well MW-1 is therefore located north to northwest of any potential influence from the permitted landfill units.

Comment 36: Final Cover System Transition

There is no discussion of how to transition from the standard final cover system to an alternative final cover system.

Response 36:

Detail 46 on Drawing 7-1 of Attachment 7 to Part III of the application shows the transition from the standard final cover system to an alternative final cover system.

Comment 37: Final Cover Modeling

The Applicant uses two different models to evaluate the final cover system, but there is no discussion of whether the results are consistent or not.

Response 37:

The two different computer models were used for two different liner systems. The Hydraulic Evaluation of Landfill Performance computer model was used for the proposed standard final cover system and the UNSAT-H computer program was used for the equivalency demonstration of the alternate, evapotranspiration final cover system. The Executive Director has reviewed these final covers and determined that these final covers are acceptable and comply with the requirements of 30 TAC § 330.253(c).

Comment 38: Gas Monitoring Wells

There is no discussion of when to install gas monitoring wells with the final cover system.

Response 38:

Information regarding the installation schedule for the gas monitoring probes and the gas extraction wells are provided in Table 14-2 and Section 6.4 of Attachment 14 to Part III of the application.

Comment 39: Cross Sections Inconsistency

The cross-section diagrams in Attachment 2 and Attachment 4 do not match and are inconsistent.

Response 39:

The cross-section diagrams in Attachment 2 and Attachment 4 were prepared to cross different linear paths across the landfill to serve different purposes. Attachment 2 cross-section diagrams were prepared in accordance with 30 TAC § 330.56(b), to show the landfill profile including top and bottom elevation, perimeter roads and drainage ditches, and etc. Attachment 4 cross-section diagrams were prepared in accordance with 30 TAC § 330.56(d)(5)(A)(viii) to cross the landfill boring locations.

Comment 40: Groundwater Gradient

Unit 3 does not have an up or down gradient monitoring well proposed.

Response 40:

Unit 3 is located within the permitted portion of the facility, for which a ground-water monitoring system had been twice proposed, reviewed, and approved by the TCEQ. This system has been in place since February 1992, as discussed in the Response to Comment 35 above. During the site soils investigation, soil borings drilled in the vicinity of Unit 3 detected little to no groundwater. Even so, monitor well MW-5 was installed west of Unit 3 as part of the above monitoring system. After repeated, unsuccessful attempts at obtaining sufficient quantities of groundwater from the well to perform sample analysis, a request was made to the TCEQ to plug and abandon the well - thereby removing it from the approved ground-water monitoring system. This request was approved by the TCEQ, and the well was decommissioned in November 1995. The same month, monitor well MW-6 was installed to monitor the groundwater in the vicinity of Unit 3, which has sporadically produced enough water to perform analysis on the samples. Due to the lack of a persistent presence of groundwater in the Unit 3 area, implying the unlikely presence of a transport mechanism for any potential releases there, Staff does not see a need for additional monitor wells in the Unit 3 area.

Comment 41: Contaminated Water Management Plan

There is no real management plan for contaminated water. A statement in Attachment 6, Groundwater and Surface Water Protection Plan and Drainage Plan, simply states that contaminated water will be managed in accordance with applicable regulations and it states the leachate and contaminated water will be placed in storage tanks with no recirculation, but there are no controls to prevent recirculation of the combined leachate and contaminated water from happening. Therefore, the ground and surface water protection plan is inadequate.

Response 41:

The Commission's MSW regulations at 30 TAC § 330.56(o) require the Applicant to implement the requirements contained in Attachments 15 to collect, store, and dispose of the landfill leachate and contaminated water. "Contaminated water" as defined in the TCEQ MSW Rules is water which has come into contact with waste, leachate, or gas condensate. Discharge of leachate, gas condensate, and contaminated water through surface drainage systems is prohibited.

The application contains adequate designs and prevention measures as presented in Attachment 15 to Part III of the application (Leachate and Contaminated Water Plan) and in various sections in Part IV of the application (Site Operating Plan.) Section 6 of Attachment 15 to Part III of the application indicates that contaminated water generated onsite will be transported via tanker trucks to a properly permitted offsite facility for treatment. Contaminated water, or contaminated water mixed with leachate will not be recirculated.

Comment 42: Run-Off from Daily Cover

Appendix 6G states that run-off from daily cover is contaminated, but does not provide for containment or treatment of this run-off other than at the working face. Runoff from daily cover is simply to be allowed to discharge into surface water courses without approval from TCEQ in violation of the MSW regulations.

Response 42:

According to 30 TAC § 330.5(e)(6)(A)(ii) of the TCEQ's MSW rules, recirculation of leachate and condensate over Subtitle D areas is allowed. Run-off from daily cover is contaminated water and no contaminated water or mixture of contaminated water and leachate will be allowed. Appendix 6G of Attachment 6 to Part III of the application makes reference to Attachment 15 and the Attachment 15 describes how contaminated water will be managed. Run-off from daily cover will be captured by working face berms.

Comment 43: Slope Stability Analysis

The slope stability analysis in Appendix 4F uses installed strength parameters and there was no analysis performed on the stability of the waste considering the decrease in strength parameters due to alternate wetting and drying as shown by Stephen Wright, Professor of Geotechnical Engineers at the University of Texas.

Response 43:

Under 30 TAC § 330.51(d) of the TCEQ's MSW rules, MSW permit application must be prepared, signed, and sealed by a professional engineer. The slope stability analysis was prepared and sealed by Mr. Scott Graves, P.E., a licensed professional engineer, to ensure accuracy of the analysis and calculations.

Appendix 4F of Attachment 4 to Part III of the application indicates that the proposed final cover slopes are stable with a safety factors greater than 1.3 under all conditions analyzed. The Applicant will be required to implement the applicable requirements contained in Attachments 4, 12, 13, and Part IV of the permit amendment application for the slope construction and maintenance during the post-closure care period.

Comment 44: Slope Stability Analysis

The slope stability analysis used an unrealistic weight of 2,160 pounds per cubic yard and the weight in the site life calculations was only 1,500 pounds per cubic yard.

Response 44:

Please see Response 43. In addition, the heavier waste weight will yield the more conservative safety factor for the analysis.

Comment 45: Low Cost Estimate

The closure and post-closure care costs in Attachment 8 are suspect. For example, the costs for ground water monitoring appear too low and there are no costs allocated for closure of liquids stabilization facilities.

Response 45:

According to 30 TAC § 330.56(h) applicants must submit a cost estimate for closure and post closure care costs in accordance with 30 TAC §§ 330.280 - 330.284 of the MSW rules. 30 TAC § 330.281(a) requires that owners or operators of MSW facilities provide a detailed written cost estimate, in current dollars, showing the cost of hiring a third party to close the largest area of the landfill ever requiring a final closure anytime during the active life of the unit. 30 TAC § 330.283(a) requires that applicants provide a detailed written cost estimate, in current dollars, showing the cost of hiring a third party to conduct post closure care activities. The unit rates associated with ground water monitoring are from actual WMTX groundwater monitoring cost data in central Texas (per information obtained from the applicant's engineer). This information can be found in Appendix 8-A of Attachment 8 to Part III of the application. The Executive Director has reviewed the cost estimates for closure and post closure care in Attachment 8 of Part III of the application, and determined that this information complies with the requirements of 30 TAC § 330.56(h). Liquids stabilization facility does not exist and is not proposed.

Comment 46: Stormwater Discharge

The storm-water discharge for Point E nearly doubles after development. This storm water is then discharged through a culvert beneath Schwarzlose Road, but there is no analysis, which shows that the culvert can convey twice the storm-water discharge. This potentially constitutes a significant alteration of natural drainage in violation of the MSW regulations.

Response 46:

According to 30 TAC § 330.56(f)(4), landfills are not allowed to significantly alter the natural drainage pattern that existed on the site before the development of the proposed facility. The Applicant provided a drainage analysis in Attachment 6 to Part III of the application that states that the proposed facility will not increase run-off onto adjacent property.

Drainage calculations on page 6-11 of Attachment 6 to Part III of the application indicates that the existing peak discharge value at Point E is 43 cubic feet per second (cfs), and the proposed peak discharge value is 21 cfs. The Executive Director determined that the information submitted complies with the TCEQ's MSW rules.

Comment 47: Inadequate Sedimentation Ponds Design

The storm-water ponds are to also act as sedimentation ponds, but will be ineffective for control of sedimentation because the discharge inverts are at the bottom of the ponds.

Response 47:

Drawing 6-12 of Attachment 6 to Part III of the application details the stormwater ponds design. The design was prepared and sealed by Mr. Scott Graves, P.E., a licensed professional engineer, to ensure accuracy and effectiveness of sediment control. The discharge inverts consist of riser pipes, low-flow orifices, and coarse aggregate filter system. The system design will decrease the flow rate at the bottom of the ponds and increase retention time. In addition, the riser pipes elevation is approximately 3.5 ft above the bottom of the ponds. The Executive Director has reviewed and determined that the proposed ponds design is acceptable for sediment control.

Comment 48: Stormwater Impact on Mesquite Creek

Although natural, permit amendment discharge of Mesquite Creek exceeds non-erosional velocities with no erosion controls provided, the proposed post development discharge also exceeds non-erosional velocities and no erosional controls are provided. Therefore, there is no protection for Freedom Lake from sediment accumulation provided in the proposed site development plan.

Response 48:

In Attachment 6 of Part III of the application, the Applicant has indicated that stormwater will be conveyed to downchute channels via add on berms, and energy dissipaters will be installed at the bottom of downchute channels to decelerate the flows. In addition, the stormwater will be redirected via perimeter ditches into detention ponds (as previously mentioned in Response 47) prior to discharge off of the site. All debris from the landfill will be detained in the ponds. The Executive Director has reviewed and determined that the proposed ponds design is adequate to ensure that discharge from the proposed site will not significantly impact the Freedom Lake.

Comment 49: GWSAP

The "Groundwater Sampling and Analysis Plan" (GWSAP) in the permit amendment application is contradictory because it states there will be no field filtering allowed, but there is a provision to collect dissolved metals which requires field filtering or filtering at the laboratory. Also, the lists of metals for total and dissolved samples are not the same.

Response 49:

30 TAC § 330.405(c) states that "(g)roundwater samples shall not be field-filtered prior to laboratory analysis. Filtering of samples at the laboratory is therefore not prohibited under the MSW Rules, and is therefore an acceptable procedure to be included in the facility GWSAP. Since the GWSAP specifically prohibits field-filtering in § 2.7.3, it is inferred that any filtering of ground-water samples from the facility's monitor wells would have to take place at the laboratory to maintain compliance with the facility permit. Concerning the comment that the

lists of metals for total and dissolved samples are not the same, staff assumes that the comment is referencing Table III-11.1 of the proposed GWSAP. Table III-11.1 only provides the methods of sample collection, preservation, and holding times, and is not to be interpreted as the required parameters to be sampled during sampling events. Instead, the detection monitoring parameter list is defined by the content of Table III-11.4, consisting of the 15 metals and 47 volatile organic compounds further discussed in Comment 50 below. It was noticed that two of the parameters listed in Table III-11.1, cobalt and vanadium, are listed as parameters to be determined in the dissolved phase, and not as total concentrations as listed in Table III-11.4. The Applicant will now be aware of this minor inconsistency, and Staff will ensure that this is rectified in the expected submittal of a revised facility GWSAP to comply with recent MSW Rules revisions to Subchapter F of 30 TAC Chapter 330. In an October 19, 2006, TCEQ letter, the Applicant was given an exemption to the required submittal date of a permit modification application to comply with rule 30 TAC § 330.261(a), and will be required to submit the document to the MSW Permits Section no later than one year after the Commission's final decision, a duration which includes any subsequent appellate action(s).

Comment 50: Groundwater Quality

The application is merely permissive for the operator to use ordinary water quality parameters for evaluating ground-water quality.

Response 50:

Detection monitoring is required for all ground-water monitoring wells at Type I municipal solid waste landfill facilities, which is specified in 30 TAC § 330.407. In the facility GWSAP, the Applicant commits in Section 5.1 to initially sample for the complete Title 40 Code of Federal Regulations Part 258 (effective July 14, 2005) Appendix I constituent list, which is comprised of 47 volatile organic compounds (VOCs) and 15 metals, and is depicted in Table III-11.4. Thereafter, Table III-11.4 may be revised in accordance with 30 TAC § 330.234(a)(2) to substitute alternative parameters for any of the 15 metals which are not reasonably expected to be in or derived from the waste contained in the unit, provided the Applicant receives approval of the changes from the TCEQ (any alternative list will be expected to include the 47 VOCs listed in Appendix I). The alternative constituents would be selected from the inorganic ground-water quality parameters listed in the section – namely, calcium, potassium, total alkalinity, magnesium, chloride, iron, ammonia, sodium, sulfate, manganese, and total dissolved solids. After review by Staff, the proposals above were considered in compliance with all of the current MSW Rules and technical guidance (TCEQ Regulatory Guidance RG-74, May 1994, Guidelines for Preparing a Ground-water Sampling and Analysis Plan.)

Comment 51: Final Cover System

A standard Subtitle D final cover system is proposed that incorporates a flexible membrane, yet the gas management plan presented includes no provisions for venting or collection of landfill gas generated within the landfill from beneath the flexible membrane.

Installation of a final cover system lacking an appropriate landfill gas venting or collection system is a recipe for failure of the final cover system.

Response 51:

As presented in Section 6 of Attachment 14 to Part III of the application, an active gas vents system is proposed and will be installed concurrent with the installation of the final cover to prevent the possible positive pressure beneath the final cover system and lateral migration of landfill gas. Engineering details of the gas vents system are shown in Drawings 14-4, 14-5, and 14-8 of Attachment 14 to Part III of the application. The gas vents system contains sufficient information for landfill gas management and control acceptable for the final cover system. In addition, the plan was signed and sealed by Mr. Scott Graves, P.E., a licensed professional engineer, to ensure accuracy of the design. The Executive Director has determined that the proposed landfill gas collection and control system complies with all applicable requirements.

Comment 52: Final Cover Design to Prevent Sliding

The standard Subtitle D final cover system does not show how the geomembrane and geonet will be anchored on the side slope or discuss how sliding will be prevented.

Response 52:

As previously explained in Responses 43 and 44, the conservative value of the final cover system's safety factor for slope stability is 1.3. Geosynthetics anchoring is not required.

Comment 53: Contaminated Water & Leachate Force Mains

The permit amendment application states that leachate and landfill gas condensate will be pumped through a force main to evaporation ponds, which means the force main(s) from Units I and III will cross Mesquite Creek. No design details are provided for a force main system that can support the pressure or be protected from damage or destruction where any force main crosses Mesquite Creek. In addition, it does appear the Army Corps of Engineers was informed about the need for a force main system to cross Mesquite Creek. Thus, the options should not be permitted.

Response 53:

The leachate and landfill gas condensate management plan was prepared, signed and sealed by Mr. Scott Graves, P.E., a licensed professional engineer, to assure that the force main system will be designed as pressure pipe in accordance with engineering standards that has adequate strength to withstand an internal operating pressure. Furthermore, § 4.2 of Attachment 15 to Part III of the application indicates that the force main system may be used but the initial system will be the existing leachate storage tanks. Necessary engineering detail is shown on Drawing 15-3 of Attachment 15 to Part III of the application. However, the complete force main

design must be submitted to and approved by TCEQ and if needed, a U.S. Army Corps of Engineers permit must be secured prior to construction.

Comment 54: Contaminated Water & Leachate Force Mains Leak Detection Systems

The application does not require the use of leak detention systems on the leachate force mains.

Response 54:

The proposed leak detection system for the leachate force main is shown on Drawing 15-3 of Attachment 15 to Part III of the application.

Comment 55: Leachate Recirculation over Alternate Liner Areas

The application does not preclude the recirculation of leachate in Unit 3 over an alternative liner design.

Response 55:

Section 6 of Attachment 15 to Part III of the application, indicates that all recirculation performed at the site will be in areas meeting the requirements of 30 TAC § 330.56(o)(2). Recirculation will not be performed over pre-Subtitle D areas or GCL-lined areas.

Comment 56: Leachate Recirculation over Different Landfill Units

The application does not preclude the recirculation of leachate collected from Units 1 and 3 and recirculating the leachate in Unit 2 in violation of the Subtitle D rule.

Response 56:

On October 20, 2006, the Applicant submitted revisions to Attachment 15 to Part III of the application to clarify that leachate from one unit at the facility shall not be recirculated into another unit at the facility.

Comment 57: Leachate Evaporation Ponds Capacity

There are no calculations showing the impact of annual rainfall on the storage capacity of the leachate evaporation ponds.

Response 57:

Calculations showing the impact of annual rainfall on the storage capacity of the leachate evaporation ponds are provided on page 15H-2 of Attachment 15H the Part III of the application.

Comment 58: Contaminated Water & Leachate Management in SOP

Section § 24.1.1 of the Site Operating Plan says contaminated run-off will be handled the same as leachate, but does not indicate how this will be accomplished.

Response 58:

Attachment 15 to Part III of the application describes how leachate and contaminated water will be handled. Section 24.1.1 of the Site Operating Plan describes how stormwater run-off from daily cover soil will be handled which also makes reference to leachate handling plan in Attachment 15 to Part III of the application.

Comment 59: Landfill Depth & Height

Rocky Haggerty, James Langford, Cheryl Fisher and Nancy Krueger asked the following:

- What are maximum depth and height of the landfill of both existing and expansion?
- Can blasts from the cannons for bird control be made minimized and not to go on too late until night time?
- Would 24/7 operating hours allow the landfill to operate all night long?

Response 59:

Currently, the maximum elevation of the existing landfill is 798 ft above mean sea level (ft-msl) and is approximately 190 ft. above the natural ground. The expansion area is proposed to have a maximum elevation of 790 ft-msl and is approximately 8 ft. lower than the currently permitted elevation. The application contains adequate information to demonstrate this in Part III, Attachment 1, Drawings 1-1 and 1-3. The deepest excavations are at approximately 568 ft-msl for the existing site and at 595 ft-msl for the expansion as demonstrated in Attachment 7 of the application.

Regarding blasts from the cannons, the landfill's representative stated at the public meeting that situation regarding the blasts from the cannons for bird control will be improved.

The application proposed to operate 24 hours per day 7 days per week.

Comment 60: Property Values

John Holtman questioned the impact of the application on property values.

Response 60:

The TCEQ's MSW rules do not have a provision to consider property value. TCEQ has no authority under the Texas Health & Safety Code (THSC) to consider property values when

reviewing permit applications. While the THSC does allow the consideration of economic development for proposed industrial and hazardous waste facilities it does not provide TCEQ authority to consider such things in relation to permitting of municipal solid waste facilities.

Comment 61: Groundwater Testing Frequency

Ms. Nancy Krueger questioned that why groundwater testing is not tested more frequently than quarterly.

Response 61:

The groundwater monitoring system, which will provide for early detection of potential releases from the facility, will consist of 23 groundwater monitoring wells in the permit amendment application. The groundwater monitoring network will be sampled, analyzed, and monitored in accordance with the procedures in the Groundwater Sampling and Analysis Plan (GWSAP), Attachment 11 of the application, which is part of the facility permit. The provided GWSAP complies with the TCEQ's MSW rules.

Comment 62: Stormwater Run-off

Rudy and Nancy Schwarzlose are concerned that stormwater run-off from the landfill will excessively flow onto adjacent land.

Response 62:

Please refer Responses #20 & #46.

Comment 63: Quality of Existing Landfill Operations

Mr. Rudy Saucedo wanted to be sure that the application will improve the current landfill operations.

Response 63:

The Site Operating Plan (SOP) of the application complies with the new TCEQ's MSW rules (March 2006) which requires more information and commitments from the Applicant to improve the landfill operations.

Comment 64:

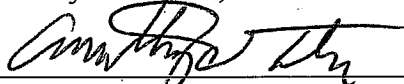
Commissioner Judy Cope, Guadalupe County, Precinct 4 and Guadalupe County Judge Mike Wiggins, are concerned about road repair costs due to additional traffic, the recycling program, inadequate landfill covers, odor, noise from bird control cannons, and erosion into Freedom Lake.

Response:

- Regarding road repair costs due to additional traffic, the TCEQ's MSW rules do not have a provision to consider road repair costs. TCEQ has no authority under the Texas Health & Safety Code (THSC) to consider this cost when reviewing permit applications.
- Regarding the recycling program, please see Response #7.
- Regarding inadequate landfill covers that lead to odor problem, The TCEQ's MSW rules at 30 TAC § 330.5 require that the proposed facility be operated in a way that prevents the occurrence of nuisance odor conditions. Various features of the proposed site operation, including daily covering of waste and prevention of ponded water, should control the development of odor conditions. The application contained sufficient information for the Executive Director to determine that the application met the TCEQ's regulations. If objectionable odors occur, the owner or operator must initiate appropriate measures to alleviate the condition. Procedures concerning the covering of waste at the facility are addressed in the Site Operating Plan, Part IV of the application. If the owner or operator follows these procedures, odors from the landfill should be reduced. In addition, if the permit is approved, it would not limit the ability of a landowner to use common law remedies for a nuisance in response to activities that interfere with his use and enjoyment of his property. For information on TCEQ's odor complaint investigation procedures, interested persons are encouraged to visit the following webpage: http://www.tceq.state.tx.us/compliance/complaints/protocols/odor_prot.pdf. Adequate information regarding odor prevention has been provided in Part IV of the application. The plan describes odor control measures to identify sources of odor and provide corrective action to minimize odor.
- Regarding noise from bird control cannons, please see Response #59.
- Regarding erosion into Freedom Lake, please see Response #48.

No changes have been made to the draft permit in response to comments received.

Respectfully submitted,



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Representing the Executive Director
of the Texas Commission on Environmental Quality

CERTIFICATE OF SERVICE

I certify that on June 28, 2007 the Executive Director's Response to Public Comment, for Waste Management of Texas, Inc. Proposed TCEQ MSW Permit No. 66B, was filed with the Office of the Chief Clerk for the Texas Commission on Environmental Quality.

A handwritten signature in black ink, appearing to read 'Anthony Tatu', is written over a horizontal line.

Anthony Tatu, Staff Attorney
Environmental Law Division
State Bar No. 00792869

MAILING LIST
FOR
WASTE MANAGEMENT OF TEXAS, INC. PROPOSED PERMIT NO. 66B

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ATTACHMENT A

List of Commentors
Waste Management of Texas, Inc.
Mesquite Creek Landfill
Permit Application No. MSW-66B

Comment Letters
Waste Management of Texas, Inc.
Mesquite Creek Landfill
Permit Application No. MSW-66B

Adams, Tom
Alegria, Ismael
Alegria, Minnie
Allan, Chris
Allan, Robert
Armendariz, Enrique
Armendariz, Jose
Armendariz, Raul
Armendariz, Rosa
Arrall, Chris
Bacobito, David
Baker, Daniel
Baker, Lowell
Beard, Michael
Beltran, Leo Poldo
Belven, Brent
Berglund, Paul
Black, Alicia
Black, Mitchell
Bohne, Derwin
Brigance, Mark
Brotze, Michael
Bruns, Jefermy
Caddell, Dustin
Carl, Steven
Chaffe, Tom
Chapa, Diana
Clark, Pete
Coatee, Al
Cocchilola, Victor
Coello, Donna
Conable, Samanatha
Corren, Joel
Crawford, Chad
Damuth, Lance
Dawson, William
De La Zerda, James
Dewar, Porter
Dicksiion, Monty
Dixon, Ryan
Dockery, JB
Dolenal, Steven
Duc, Mike

Dunn, Scott
Durham, Melvin
East, Tim
Emmis, Don
Fadul, Barney
Fisher, Cherly
Flores, Max
Flores, Olga
Flores, Roy
Fortner, Brandy
French, Ricky
Friedel, Marvin
Garcia, Daniela
Garcia, David
Garcia, Ruben
Garcia, Santa Clara
Gilbert, John
Gomez, Dave
Gomez, Rae Laynn
Gomez, Vicente
Gonzales, Ricardo
Graham, Allison
Graves, Brandon
Green, James
Griffin, Mara
Hardin, TR
Harrell, Brian
Harris, Milton
Hart, Noble
Haynes, Chris
Haynes, Frank
Henn, Kenneth
Herrejon, Javier
Hester, William
Hitzfelder, Dan
Hollan, John
Hook, Robert
Hunt, Steve
Hutchison, Daniel
Jackson, James
Jekel, Marty
Jekel, Mike
Jimenez, Robert

Johnson, Justin
Jones, Allan
Kennady, Jan
Kettler, Karl
Kettler, Pat
King, Brian
Klug, M
Knivacka, Jamie
Koepke, Robert
Krivacka, Jefferey
Krivacka, Joseph
Krueger, Nancy
Kubend, Johnny
La Cross, Gre
Laird, Samuel Eric
Lambert, ER
Langord, James
Lefler, Randy
Liell, Gaylord
Lotz, William
Lucas, Jeff
Madrigal, Manuel
Mahoney, Brian
Martin, Geary
Martin, Jennifer
Martin, Torra
Martinez, Gloria
Martinez, Joan
Martinez, Jose L.
Martinez, Juan Antonio
Martinez, Maria
Mata, Alex
Matthews, Merle
May, Aaron
McCulley, Chris
McDaniel, Roy L.
McDonald, Billie
McDonald, Garrett
Mcintosh, Kenneth E.
Medrano, Angelica
Mendoza, Eusebio
Mercer, Dorothy
Miller, Anthony L.

Comment Letters
Waste Management of Texas, Inc.
Mesquite Creek Landfill
Permit Application No. MSW-66B

Miller, Dennis A.
Miller, Lola
Millett, Steven
Molina, Guillermo
Montero, Nydia
Montoya, Juan
Moos, John
Muecke, Steven
Myers, Brad
Newby, Jerry
O'Brien, Melissa
O'Brien, Stephen
Olvera, Reyna
Olveria, Jose
Paulos, David
Peek, Cindy
Peek, Clayton
Peek, Robert C.
Perez, Anna M.
Perez, Ruben G.
Pieper, Robert
Podyurski, Charles
Porter, Al
Prescott, Lule
Prewitt, Lisa
Quintanilla, Leticia
Ramirez, Nick
Ramos, Andreanna
Ramos, Christy
Ramus, Nick
Reed, Ted
Rice, Martin
Rodriguez, Doroteo
Rudd, Joe P.
Rutherford, David
Rutherford, Jeff
Salazar, Alia
Sambia, Horacio
Sanchez, Alia
Sanchez, Alma
Sanchez, Geronimo
Sanchez, Rene
Sandoval, Horatio M.

Schaffer, J
Scheel, Danny
Settle, Kristina
Shafer, Timothy
Sherrow, Sayle D.
Sifford, Benton
Sifford, Carl
Sifford, Freida
Singleton, Don
Smith, Matthew
Spiker, David
Stephens, David
Stolhundske, Thomas B.
Sullivan, Groven
Suntillan, Jose
Taylor, Donna
Techau, Gene
Theteford, Todd
Tinsley, James
Toler, Von
Trial, Shelby
Trumball, John
Tschirhart, Wayne
Ullrich, Regina
Urdialez, Alex R.
Urdialez, Elvira L.
Urdialez, Rachel
Urratia, Robert
Varni, Chris
Vasquez, Brianna
Villa, Guadalupe I
Villarreal, Tommy
Villegas, Lucy M.
Wahrmond, Michael
Ward, Inga
Warmack, Art
Weaver, Melissa
Wheeler, Reynaldo
Wigley, Beverly
Williams, April
Williams, Cody
Williams, Jerry
Wilo, Don

Woodard, Jeffery
Woody, Amanda
Woolsy, Mark D.
Young, Raul
Young, Regina

Unidentified

Commenters

Commenter 1
Commenter 2
Commenter 3
Commenter 4
Commenter 5
Commenter 6
Commenter 7
Commenter 8